REMARKS

Claims 1-31 were pending in the subject application. By this amendment, Claims 1, 3, 6-8, 13-17, 22, 24, 27 and 31 have been amended, and new Claims 33-34 have been added. Accordingly, upon entry of this amendment, Claims 1-31 and 33-34 will be pending and under examination. Applicants maintain that the amendments to the claims do not raise an issue of new matter. Support for the amendments can be found at least in the paragraph bridging pages 9-10 of the specification and in the previous version of the claims.

The specification has been amended to add an indication of trademarks on page 19 and to provide replacement drawing sheets for Figures 2, 3 and 5. Applicants maintain that the amendments to the specification do not raise an issue of new matter.

Entry of the amendments is respectfully requested.

Objections to the Specification

The Examiner indicated that trademarks need to be indicated in the application for Oregon Green, Texas Red, and BODIPY. The specification has been amended accordingly on page 19, lines 15-23. Examiner also indicated that the trademarks be accompanied by "generic terminology." In this regard, applicants note that that the application already indicates that the Oregon Green, Texas Red, and BODIPY refer to types of fluorescent molecules. Accordingly, reconsideration and withdrawal of this objection are respectfully requested.

Objections to the Drawings

The Examiner objected to Figures 2A-2B, 3B and 5B. Reconsideration and withdrawal of this objection are respectfully requested in view of the replacement drawings (3 sheets) attached hereto.

Provisional Obviousness-type Double Patenting Rejection

Claims 1-5 and 8-22 are provisionally rejected as being unpatentable over Claims 1, 6, 8-18 and 20-28 of co-pending U.S. Patent Application 10/579,896, which has not yet been examined on its merits. Since the present application is the earlier-filed of the two applications, if all other rejections are overcome in the present application, the Examiner should withdraw this rejection (MPEP §804).

Rejections under 35 U.S.C. §112, First Paragraph

Claims 1-12 and 17-31 are rejected as not complying with the written description requirement for the full breadth of the claims.

Claims 1-31 are rejected as not complying with the enablement requirement for the full breadth of the claims.

Claim 1 has been amended to recite subject from Claims 13-15, thereby obviating the rejection based on written description.

Applicants respectfully maintain that the specification is enabling for the skilled artisan to practice the invention as set forth in the amended claims. Applicants note that the Examiner has acknowledged enabled subject matter in the bottom paragraph on page 14 of the Office Action. Claim 1 now requires that detector molecules are appropriate to detect the cellular responses to be assayed. The skilled artisan would know what detector molecules could be used to detect different cellular responses from cells or cellular components as set forth in the amended claims. The invention does not require that every recited detector molecule function with every recited cellular response.

On page 17 of the Office Action, the Examiner makes the point that responses to stimuli observed in various cell types are varied and unpredicted, relying on data from two references (Tanaka et al. 2004 and Smith et al. 2006). The Examiner indicates that "Tanaka *et al.* (2004) teaches a method wherein Human Hepatoma cells showed

increased cell death in response to micromolar amounts of doxorubicin (Pg. 413, Fig. 3) while Smith *et al.* (2006) teaches that certain human breast cancer cells are resistant to the same compound in nanomolar amounts (Pg. 2118, Figure 1)" and then concludes "Even among two human cell types widely divergent responses to the same chemical are observed." Applicants respectfully disagree with the Examiner's interpretation of the cited literature. Tanaka *et al.* (2004) plot "cell death rate" on the vertical axis of Fig. 3. Smith *et al.* (2006) plot "Survival (% of Controls)" on the vertical axis of Fig. 1. Tanaka *et al.* (2004) used heptatoma cell line HepG2 cells, whereas Smith *et al.* (2006) compared the breast cancer cell line DDA-MB-231 and a novel derivative which displays resistance to doxorubicin. Both references clearly show that cell death increases (survival decreases) for all cell types tested as the concentration of doxorubicin increases. In Smith *et al.* (2006), survival was reduced to 0% at 100 nM doxorubicin or 200 nM doxorubicin, depending on the cell type. In Tanaka *et al.* (2004), cell death was essentially complete at about 10 μM (10,000 nM) at 72 hours. Applicants respectfully submit that this is NOT a "widely divergent response" as was characterized by the Examiner. More importantly, the present invention does not require that one is able to predict the exact cellular response to a stimulus in order to practice the invention. In the example of the Examiner, for example, one does not have to predict the concentration of doxorubicin that is effective to kill a certain percentage of cells in order to practice the invention, or even that doxorubicin will be effective to kill any cells.

Furthermore, even if the claims did read on an inoperative combination of detector molecule and cellular response, "[t]he presence of inoperative embodiments within the scope of a claim does not necessarily render a claim nonenabled. The standard is whether a skilled person could determine which embodiments that were conceived, but not yet made, would be inoperative or operative with expenditure of no more effort than is normally required in the art. *Atlas Powder Co. v. E.I. du Pont de Nemours & Co.*, 750 F.2d

1569, 1577, 224 USPQ 409, 414 (Fed. Cir. 1984)..." MPEP §2164.08(b).

Reconsideration and withdrawal of these rejections are respectfully requested.

Rejections under 35 U.S.C. §112, Second Paragraph

1) Claims 1-31 are rejected as indefinite for use of the term "cellular components" when the term is also meant to include additional components. The claims have been amended to recite "cells or cellular components" which should obviate this rejection.

2) Claims 1-31 are rejected because in Claim 1 there is no step indicating that the detector molecule actually detect anything and the means by which detection is effected. In order to address this rejection, step (d) in Claim 1 has been amended to recite "(d) assaying said cellular responses, wherein cellular responses are detected using said detector molecules..."

3) Claims 6 is rejected for reciting "the nutrients" where the preceding claims do not provide antecedent basis for this limitation. Claim 6 has been amended to remove the article "the" before "nutrients" which obviate this rejection.

4) Claim 7 is rejected because it is unclear how the detection agent of Claim 7 relates to the immobilized detector molecules of Claim 1. Claim 7 has been re-written as an independent claim, where the detector molecules are provided in a separate step.

5) Claim 15 is rejected for reciting "the cell" where the preceding claims do not provide antecedent basis for this limitation. Claim 15 has been amended to remove recitation of "the cell" thereby obviating this rejection.

6) Claims 15 and 16 are rejected because it is not clear how "surface exposure of a protein or other molecule of interest by the cell" as recited in Claim 15 could be achieved where the "molecule of interest" is "antimicrobial peptides" or "small organic molecules including pharmaceutical molecules." Claim 16 has been amended to delete these terms, thereby obviating this rejection.

Reconsideration and withdrawal of these rejections are respectfully requested.

CONCLUSIONS

In view of the amendments and remarks made herein above, reconsideration and withdrawal of the objections and rejections set forth in the October 2, 2007 Office Action and passage of the pending claims to allowance are respectfully requested. If there are any minor matters preventing the allowance of the subject application, the Examiner is requested to telephone the undersigned attorney.

A check for $170.00 is enclosed for the $120.00 fee for a one month extension of time and the $50.00 fee for an additional dependent claim over the number previously paid for. No additional fee is deemed necessary in connection with the submission of this reply. However, if any other fee is required with this reply or to maintain the pendency of the subject application, authorization is hereby given to withdraw the amount of any such fee from Deposit Account No. 01-1785. Overpayments may also be credited to Deposit Account No. 01-1785.

Respectfully submitted,

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Dated: February 4, 2008
New York, New York

By _____
Alan D. Miller, Reg. No. 42,889

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